

U.S. DEPARTMENT OF ENERGY **ENERGY INFORMATION ADMINISTRATION**

Washington, DC 20585

ANNUAL REPORT OF THE ORIGIN OF NATURAL GAS LIQUIDS PRODUCTION **FORM EIA-64A**

Form Approved

OMB No. 1905-0057

Expiration Date: 12/31/03

CALENDAR YEAR 2000 This report is mandatory under Public Law 93-275. Failure to comply may result in criminal fines, civil penalties and other sanctions as provided by law. For the sanctions and the provisions concerning the confidentiality of information submitted on this form, see Page 2 of the Instructions.

Complete and return by April 1, 2001 to: **Energy Information Administration: EI-45** Mail Station: 2G-024 FORSTL Affix Mailing Label U. S. Department of Energy 1000 Independence Ave., SW Washington, DC 20585 Attn: EIA-64A Fax to (202) 586-1076/ATTN: FORM EIA-64A Questions ? Call 1-800-879-1470 PART I. PLANT AND PRODUCTION REPORT IDENTIFICATION 1.0 Does this report reflect active natural gas processing at the facility for the entire year? Yes No (indicate number of months below) Months covered by this report_ through , 2000 (Include Explanatory Notes in Section 7.0) 2.0 Submission Status Original Amended Label Information (If label is incorrect or information is missing or no label is given, enter correct information below). 3.1 Parent Company's Name 3.2 Operator's Name 3.3 Plant Name 3.4 Geographic Location (Use Area of Origin Codes, Page 6) 3.5 Street Address/PO Box 3.6 City 3.7 State 3.8 Zip Code 3.9 Contact Name 3.10 Title 3.11 Date 3.12 Telephone Number (3.13 Fax Number (3.14 E-mail Address: PART II. ORIGIN OF NATURAL GAS RECEIVED AND NATURAL GAS LIQUIDS PRODUCED Area of Origin Natural Gas Received Natural Gas Liquids Production Line Report in millions of cubic feet (MMCF) Code Report in thoursands of barrels (MBbls) (A) (B) (C) 4.1 4 2 4.3 4.4 4.5 4 6 4.7 5.0 Gas Shrinkage Resulting from Natural Gas Liquids Extracted (MMCF): 6.0 Natural Gas Used as Fuel in Processing (MMCF): 7.0 Explanatory Notes:

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ANNUAL REPORT OF THE ORIGIN OF NATURAL GAS LIQUIDS PRODUCTION FORM EIA-64A CALENDAR YEAR 2000

GENERAL INSTRUCTIONS

A. PURPOSE

The collection of basic, verifiable information on the Nation's reserves and production of natural gas liquids (NGL) is mandated by the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275) and the Department of Energy (DOE) Organization Act of 1977 (Public Law 95-91). The data collected on the Energy Information Administration (EIA) Form EIA-64A includes the annual volumes of natural gas received and natural gas liquids extracted at gas processing plants by areas of origin. It also includes the total gas shrinkage resulting from the natural gas liquids extracted and the annual volume of natural gas utilized as fuel at the gas processing plants.

Gas shrinkage volumes reported by natural gas processing plant operators on Form EIA-64A are used with natural gas data collected on a "wet after lease separation" basis on Form EIA-23, *Annual Survey of Domestic Oil and Gas Reserves*, to estimate "dry" natural gas reserves and production volumes regionally and nationally. The shrinkage data are also used, along with the plant liquids production data reported on Form EIA-64A and lease condensate data reported on Form EIA-23, to estimate regional and national gas liquids reserves and production volumes. This information is the only comprehensive source of credible natural gas liquids data and is required by DOE to assist in the formulation of national energy policies.

The information collected on Form EIA-64A will be used:

- 1) as key input to the EIA publication entitled *U.S. Crude*Oil. Natural Gas and Natural Gas Liquids Reserves:
- 2) to estimate extraction loss volumes contained in the EIA publication *Natural Gas Annual*; and
- 3) as the replacement for the natural gas liquids data which were published in the past by the American Petroleum Institute (API) and the American Gas Association (AGA) in their annual statistical reports entitled, Reserves of Crude Oil, Natural Gas Liquids and Natural Gas in the United States.

B. WHO MUST SUBMIT

Each operator of one or more domestic natural gas processing plants is required to file a Form EIA-64A for each plant operated as of December 31, 2000. If a plant was operated during any part of calendar year 2000, a Form

EIA-64A must be submitted for that plant. In cases in which two or more operators during the calendar year operated a plant, the operator as of December 31, 2000 should file a Form EIA-64A that covers the entire calendar year.

If the current operator is unable to obtain from previous operators the information required to compile accurate data covering the entire calendar year, then each operator should file a Form EIA-64A covering only that portion of the calendar year during which he operated the plant.

If there is some question whether a plant is a "natural gas processing plant" or "field separation facility," contact your company's responsible preparer for Form EIA-23, *Annual Survey of Domestic Oil and Gas Reserves*, in order to internally coordinate your responses. This will ensure that double reporting or non-reporting of natural gas liquids data does not occur. If you need assistance, contact the EIA-64A Coordinator toll-free at 1-800-879-1470 from 8:30 a.m. to 5:00 p.m. CST.

C. WHAT MUST BE SUBMITTED

Each operator is required to complete a <u>separate</u> Form EIA-64A for <u>each gas processing plant</u>. If you had a plant in operation as of December 31, 2000 and did not receive a Form EIA-64A for it, a completed form should still be filed for that plant. Additional forms may be obtained on the Internet at http://www.eia.doe.gov, by contacting the EIA-64A Coordinator toll-free at 1-800-879-1470 or photocopies of the form may be used. Respondents need submit only one copy of the completed form for each plant. Form EIA-64A solicits annual data separated by area of origin not required on Form EIA-816, *Monthly Natural Gas Liquids Report.* Form EIA-64A does not replace or supersede Form EIA-816 that is still required on a monthly basis.

D. WHEN AND WHERE TO SUBMIT

Form EIA-64A must be submitted **on or before April 1, 2001** for the 2000 calendar year.

Completed forms may be submitted by mail, fax or e-mail.

Fax completed forms to: (202) 586-1076

E-mail completed forms to: OOG.SURVEYS@eia.doe.gov

Mail completed forms to:

United States Department of Energy Energy Information Administration, EI-45 Mail Station: 2G-024 Forrestal 1000 Independence Ave., SW Washington, DC 20585

To facilitate the processing of data, the use of EIA forms is requested (either hardcopies or Excel spreadsheets). Additional copies of the EIA-64A form and instructions are available in PDF or Excel Spreadsheet (XLS) format on the EIA Website at http://www.eia.doe.gov. (After logging on the EIA website, highlight the *By Fuel* category; select *Petroleum or Natural Gas*; then select *Survey Forms* on the sidebar at the left of the screen; then scroll to *Reserves Survey Forms*)

In addition, filing electronically, when possible (i.e., using email or by fax), is encouraged. When using the Excel spreadsheet, saving the original form on your hard drive then using it to make additional copies is recommended. When entering responses on hard copies, type or print in black ink using all capital letters. Computer printouts on other than an exact duplicate of the forms provided are not acceptable.

For information concerning requests for extension of time to file or for exception from filing Form EIA-64A, contact the EIA-23 Coordinator toll-free at 1-800-879-1470 from 8:30 a.m. to 5:00 p.m. CST.

E. RECORD KEEPING REQUIREMENTS

You are required to keep all records necessary to reconstruct the data reported on this form for a period of three (3) years.

F. SANCTIONS

The timely submission of Form EIA-64A by those required to report is mandatory under Section 13 (b) of the Energy Information Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a civil penalty of not more than \$2,750 a day for each violation or a fine of not more than \$5,000 a day for each willful violation. The government may bring a civil action to prohibit reporting violations which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements.

G. CONFIDENTIALITY

The Office of Legal Counsel of the Department of Justice concluded on March 20, 1991, that the Federal Energy

Administration Act requires the Energy Information Administration to provide company-specific data to the Department of Justice, or to any other Federal agency when requested for official use, which may include enforcement of Federal law. The information contained on this form may also be made available, upon request, to another component of the Department of Energy (DOE); to any Committee of Congress, the General Accounting Office or other congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.

The information contained on this form will be kept confidential and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. §552, the DOE regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905.

Upon receipt of a request for this information under the FOIA, the DOE shall make a final determination whether the information is exempt from disclosure in accordance with the procedures and criteria provided in the regulations. To assist us in this determination, respondents should demonstrate to the DOE that, for example, their information contains trade secrets or commercial or financial information whose release would be likely to cause substantial harm to their company's competitive position. A letter accompanying the submission that explains (on an element-by-element basis) the reasons why the information would be likely to cause the respondent substantial competitive harm if released to the public would aid in this determination. A new justification does not need to be provided each time information is submitted on the form, if the company has previously submitted a justification for that information and the justification has not changed.

Information on this form is collected for statistical purposes and will not be published by the DOE in individually identifiable form. Information from this form shall be provided to the United States Department of Interior offices: Mineral Management Service and United States Geological Survey for statistical purposes only, in conducting their resource estimation activities.

H. DATA ENTRY STANDARDS

1. Total Operated Basis

All data are to be reported on a total operated basis (commonly known as the "gross operated" or "8/8ths" basis) by the operator of the natural gas processing plant.

2. Units of Measurement

Natural gas liquid volumes are to be reported in thousands of barrels (MBbls) of 42 U.S. gallons at 60° Fahrenheit. Natural gas volumes are to be reported in millions of cubic feet (MMCF) at 14.73 psia and 60° Fahrenheit.

3. Rounding

Liquid volumes should be rounded to the nearest thousand barrels. When rounding liquid volumes, round quantities of 500 barrels and above to the next higher MBbl and round quantities of less than 500 barrels down to the next lower MBbl. Similarly, when rounding natural gas volumes, round quantities of 500 MCF and above to the next higher MMCF and round quantities of less than 500 MCF down to the next lower MMCF.

EXAMPLES:

For Liquids, 7,500 barrels as: 8 MBbls 467 barrels as: 0 MBbls

For Gas, 8,500,000 cubic feet or 8,500 MCF as: 9 MMCF 10,459,000 cubic feet or 10,459 MCF as: 10 MMCF

SPECIFIC INSTRUCTIONS

PART I: PLANT AND PRODUCTION REPORT IDENTIFICATION

SECTION 1.0, "Does this report reflect..." - Insert an "X" in the appropriate box to indicate whether this Form EIA-64A report reflects active natural gas processing at the facility for the entire calendar year. If you checked "No". enter the months to which the data filed in this report pertain and provide a detailed explanation in Section 7.0. Specify if the plant was shut down and the anticipated start-up date, if known. Specify if the plant was dismantled. If there was a change in operators during the year and this report does not cover operations for the entire year, please supply any specific information concerning the previous operator which you may have, such as corporate name, mailing address Specify the facility type (e.g., and telephone number. fractionator, compressor station, etc.), if the facility is not a natural gas processing plant as defined in the Glossary and no data are, therefore, being filed.

SECTION 2.0 "Submission Status" – Insert an "X" in the appropriate box to indicate whether this Form EIA-64A report reflects a first submission or amends a previously submitted report.

SECTION 3.0, "LABEL INFORMATION (If label is incorrect...)" - Enter correct information in the following subitems, 3.1 - 3.14, if the label does not reflect current information.

Item 3.1, Parent Company's Name – Enter the legal name of the parent company, if any, that exercises ultimate control over the respondent. (See *Parent Company* in the Glossary)

Item 3.2, Operator's Name - Enter the legal corporate name of the plant operator. (See *Operator* in the Glossary)

Item 3.3, Plant Name – Enter the name of the natural gas processing facility covered by this report. (See *Natural Gas Processing Plant* in the Glossary)

Item 3.4, Geographic Location – Enter the appropriate four-letter/number code pertaining to the State or State subdivision which would identify where the reporting plant is physically located. (See Area of Origin Codes and Subdivision Maps)

Items 3.5 through 3.8, Plant Address - Enter current street address or P O Box, city, state and 9-digit zip code.

Item 3.9, Contact Name - Enter the name of the individual to whom inquiries regarding the submitted data will be directed, if necessary, and to whom Form EIA-64A will be sent in the future at the above address.

Item 3.10, Title - Enter the title of the contact person.

Item 3.11, Date – Enter the date the information on this form was completed.

Item 3.12, Telephone Number - Enter the business telephone number of the contact person.

Item 3.13, Fax Number – Enter the business fax number, if available, utilized by the contact person.

Item 3.14, E-mail Address – Enter the company E-mail address, if available, of the contact person.

PART II: ORIGIN OF NATURAL GAS RECEIVED AND NATURAL GAS LIQUIDS PRODUCED

Report the total volume of natural gas received by this natural gas processing plant and the natural gas liquids extracted from this gas during the calendar year. These total volumes should further be attributed to the State(s) or State subdivision(s) of origin as accurately as possible.

Lines 4.1 through 4.8, Area of Origin Code, Column (A) - This column is to be used to indicate the areas of origin as specified in the list of areas contained in *Areas of Origin Codes and Subdivision Maps* beginning on page 7. Please enter the correct four-letter/number code for each geographic area that contributed gas to be processed during the calendar year. If there are more than seven areas of origin involved for the same plant, complete an additional Form EIA-64A schedule and return the two schedules as one filling.

Lines 4.1 through 4.8, Natural Gas Received (MMCF), Column (B) - Estimate as accurately as possible the volumes of gas, in millions of standard cubic feet (MMCF), received for processing by area of origin. Report these volumes in Column (B) adjacent to the appropriate Area of Origin Code in Column (A). These estimates should consider all relevant information available to the respondent and should be as precise as possible. Do not include refinery off gases. The total gas processed by the plant during the calendar year should be entered on line 4.8. The sum of the volumes that were reported on lines 4.1 through 4.7 should be the same as the total volume reported on line 4.8. (See Natural Gas in the Glossary).

Lines 4.1 through 4.8, Natural Gas Liquids Production (MBbls), Column (C) - Estimate as accurately as possible the volume of natural gas liquids in thousands of barrels (MBbls) attributable to the gas volumes reported in Column (B). Enter these

amounts on the appropriate line of Column (C). The estimates of natural gas liquids recovered by area of origin should consider, to the fullest extent practical, all information available to the respondent concerning the relative liquid yields of the gas processed. Include only liquids production resulting from on-site gas processing. Include all volumes of plant condensate and scrubber oil recovered from natural gas at the plant.

Report on line 4.8 the total natural gas liquids that were recovered from the natural gas processed by the plant during the calendar year. The sum of the volumes that were reported on lines 4.1 through 4.7 should be the same as the total volume on line 4.8. This total should also equal the sum of the monthly volumes of "Production During Month" minus the sum of monthly volumes of "Inputs During Month" reported on Form EIA-816, *Monthly Natural Gas Liquids Report.* (See **Natural Gas Liquids** in the Glossary)

SECTION 5.0, Gas Shrinkage Resulting From Natural Gas Liquids Extracted - Estimate the volumes of gas shrinkage in millions of cubic feet (MMCF) resulting only from the removal of natural gas liquids from the natural gas received at the plant. Do not include gas shrinkage attributable to non-hydrocarbon gases, gas used for fuel, gas which was vented or flared or gas which was unaccounted for.

The ratio of the shrinkage volume to the total plant NGL volume reported in Line 4.8 (Column C) should range between 1.558 MMCF per thousand barrels and about 0.940 MMCF per thousands barrels. These are the approximate vapor equivalents for pure ethane and for natural gasolines and plant condensate, respectively (see table below).

Calculate the equivalent gas volumes for the natural gas liquids components by multiplying the specific liquid product by the appropriate conversion factor listed in the table below.

	Conversion
Component	Factor
or Product	(MCF/Bbl or MMCF/MBbls)
Methane*	2.468
Ethane	1.558
Propane	1.499
Isobutane	1.245
Normal Butane	1.288
Isopentane	1.095
Natural Gasoline	0.940
Plant Condensate	0.940
Other Products	0.940

^{*}Not LNG.

Conversion factors for other natural gas liquid components may be obtained from the EIA-64A Coordinator toll-free at 1-800-879-1470 between 8:30 a.m. and 5:00 p.m. CST.

EXAMPLE:

To convert 50,000 barrels of propane to the equivalent gas volume:

(50,000 barrels) times (1.499) = 74,950 MCF Or utilizing the correct reporting units: (50 MBarrels) times (1.499) = 74.95 or 75 MMCF

After converting each of the individual plant components or products (i.e., ethane, propane, isobutane, normal butane, isopentane, natural gasoline, plant condensate and other products) to their equivalent gas volume, they should then be summed to determine the total plant shrinkage volume.

SECTION 6.0, Natural Gas Used as Fuel in Processing (MMCF) - Report the volume of natural gas utilized as fuel at the natural gas processing plant. If fuel use was not metered, please provide your best estimate. If the plant utilizes some other type of fuel, such as electricity, report 0 (zero) and indicate the reason in Section 7.0, Explanatory Notes.

SECTION 7.0, Explanatory Notes - You may comment on any reported data item in order to enhance its clarity. If additional space is needed continue comments on another sheet of paper of equal size and attach it to the form.

GLOSSARY

Field Separation Facility - A surface installation designed to recover lease condensate from a produced natural gas stream usually originating from more than one lease and managed by the operator of one or more of these leases.

Natural Gas - A gaseous mixture of hydrocarbon compounds, the primary one being methane. Note: The Energy Information Administration measures wet natural gas and its two sources of production, associated/dissolved natural gas and non-associated natural gas, and dry natural gas, which is produced from wet natural gas.

Wet natural gas - A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in porous rock formations at reservoir conditions. The principal hydrocarbons normally contained in the mixture are methane, ethane, propane, butane and pentane. Typical nonhydrocarbon gases that may be present in reservoir natural gas are water vapor, carbon dioxide, hydrogen sulfide, nitrogen and trace amounts of helium. Under reservoir conditions, natural gas and its associated liquefiable portions occur either in a single gaseous phase in the reservoir or in solution with crude oil and are not distinguishable at the time as separate Note: The Securities and Exchange substances. Commission and The Financial Accounting Standards Board refer to this product as natural gas.

Associated-dissolved natural gas - Natural gas that occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (casinghead gas). See **natural gas**.

Non-associated natural gas - Natural gas that is not in contact with significant quantities of crude oil in the reservoir. See **natural gas**.

Dry natural gas: Natural gas that remains after:

- the liquefiable hydrocarbon portion has been removed from the gas stream (i.e., gas after lease, field and/or plant separation); and
- any volumes of non-hydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable.

Note: Dry natural gas is also known as consumergrade natural gas. The parameters for measurement are cubic feet at 60 degrees Fahrenheit and 14.73 pounds per square inch absolute (psia). See *natural qas*. Natural Gas Liquids - Those hydrocarbons in natural gas that are separated from the gas through the processes of absorption, condensation, adsorption or other methods in gas processing or cycling plants. Generally such liquids consist of propane and heavier hydrocarbons and are commonly referred to as condensate, natural gasoline and liquefied petroleum gases. Where hydrocarbon components lighter than propane are recovered as liquids, these components should also be included with natural gas liquids.

Natural Gas Processing Plant - Facilities designed to recover natural gas liquids from a stream of natural gas that may or may not have passed through lease separators and/or field separation facilities. These facilities also control the quality of the natural gas stream to be marketed. Cycling plants are classified as natural gas processing plants.

Operator - The person responsible for the management and day-to-day operation of one or more natural gas processing plants as of December 31 of the calendar year. The operator is generally a working interest owner or a company under contract to the working interest owner(s). Plants shut down during the calendar year are also considered "operated" as of December 31. (See **Person**)

Parent Company - A firm that directly or indirectly controls another entity.

Person - An individual, a corporation, a partnership, an association, a joint-stock company, a business trust or an unincorporated organization.

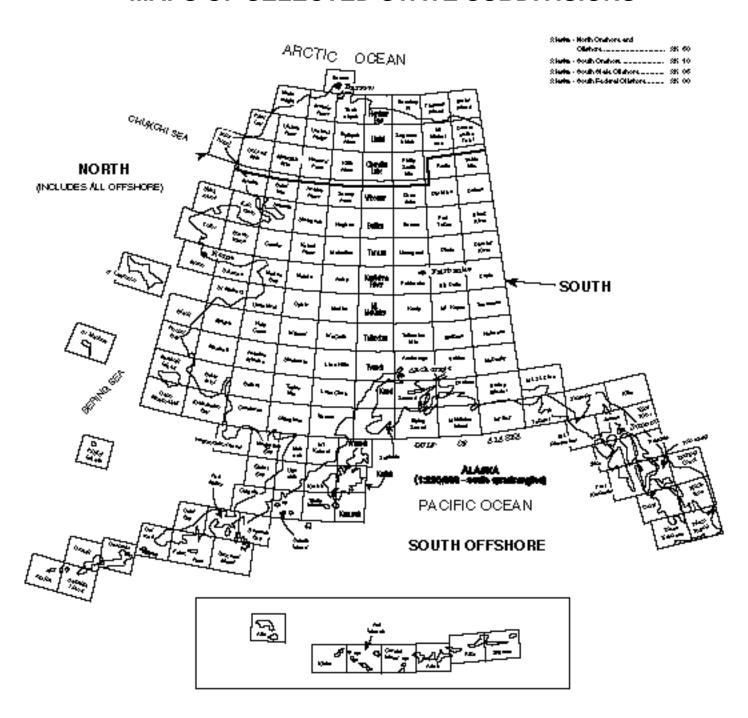
AREA OF ORIGIN CODES

State Name and Geographic Subdivision ¹	<u>Code</u>	State Name and Geographic Subdivision ¹	<u>Code</u>
Alabama Onshore	ALXX	New Mexico - West	NM50
Alabama – State Offshore		New York	NYXX
Alaska - North Onshore and Offshore ²	AK50	North Carolina	NCXX
Alaska - South Onshore		North Dakota	NDXX
Alaska - South State Offshore	AK05	Ohio	OHXX
Arizona	AZXX	Oklahoma	OKXX
Arkansas	ARXX	Oregon	ORXX
California – Coastal Region Onshore	CA50	Pennsylvania	PAXX
California – Los Angeles Basin Onshore	CA90	Rhode Island	RIXX
California - San Joaquin Basin Onshore	CA10	South Carolina	SCXX
California – State Offshore	CA05	South Dakota	SDXX
Colorado	COXX	Tennessee	TNXX
Connecticut	CTXX	Texas - Railroad Commission District 1	TX10
Delaware	DEXX	Texas - Railroad Commission District 2 Onshore	TX20
District of Columbia	DCXX	Texas - Railroad Commission District 3 Onshore	TX30
Florida – Onshore	. FLXX	Texas - Railroad Commission District 4 Onshore	TX40
Florida - State Offshore		Texas - Railroad Commission District 5	TX50
Georgia	GAXX	Texas - Railroad Commission District 6	TX60
Hawaii	HIXX	Texas - Railroad Commission District 7B	TX70
ldaho	IDXX	Texas - Railroad Commission District 7C	TX75
Illinois	ILXX	Texas - Railroad Commission District 8	
Indiana		Texas - Railroad Commission District 8A	TX85
lowa	IAXX	Texas - Railroad Commission District 9	TX90
Kansas	_	Texas - Railroad Commission District 10	
Kentucky	KYXX	Texas - State Offshore	
Louisiana – North		Utah	UTXX
Louisiana – South Onshore		Vermont	
Louisiana – South State Offshore		Virginia	
Maine		Washington	
Maryland		West Virginia	
Massachusetts		Wisconsin	
Michigan		Wyoming	
Minnesota		Federal Offshore - Atlantic	
Mississippi – Onshore		Federal Offshore - Gulf of Mexico (Alabama)	
Mississippi – State Offshore	MS05	Federal Offshore - Gulf of Mexico (Florida)	
Missouri		Federal Offshore - Gulf of Mexico (Louisiana)	
Montana		Federal Offshore - Gulf of Mexico (Mississippi)	
Nebraska		Federal Offshore - Gulf of Mexico (Other Gulf)	
Nevada		Federal Offshore - Gulf of Mexico (Texas)	
New Hampshire		Federal Offshore - Pacific (Alaska)	
New Jersey		Federal Offshore - Pacific (California)	
New Mexico – East	NM10	Federal Offshore - Pacific (Oregon)	OR00

¹Refer to maps for subdivision boundaries in the States of Alaska, California, Louisiana, New Mexico, and Texas.

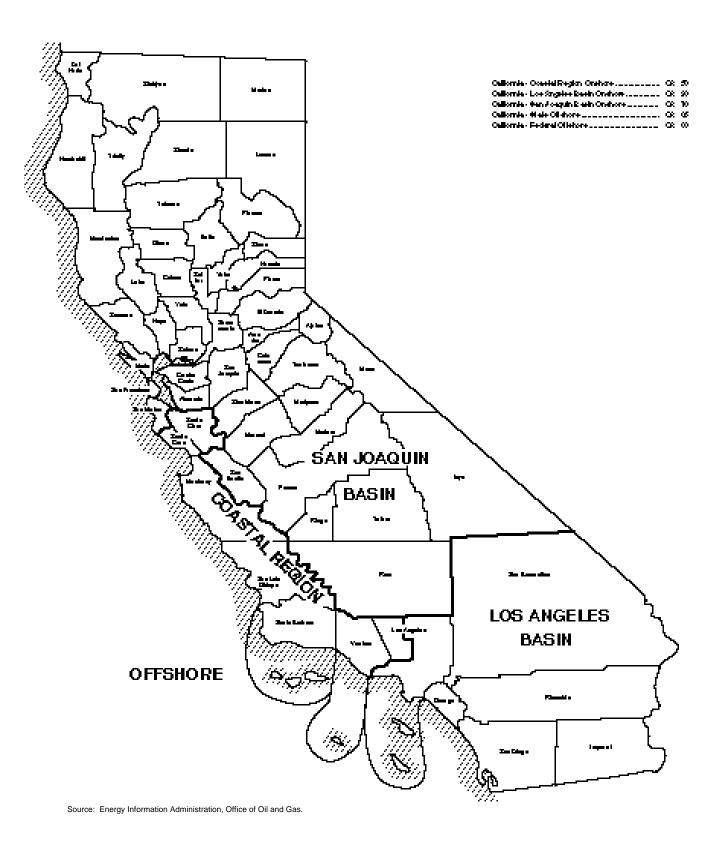
²Includes both State and Federal domain.

MAPS OF SELECTED STATE SUBDIVISIONS

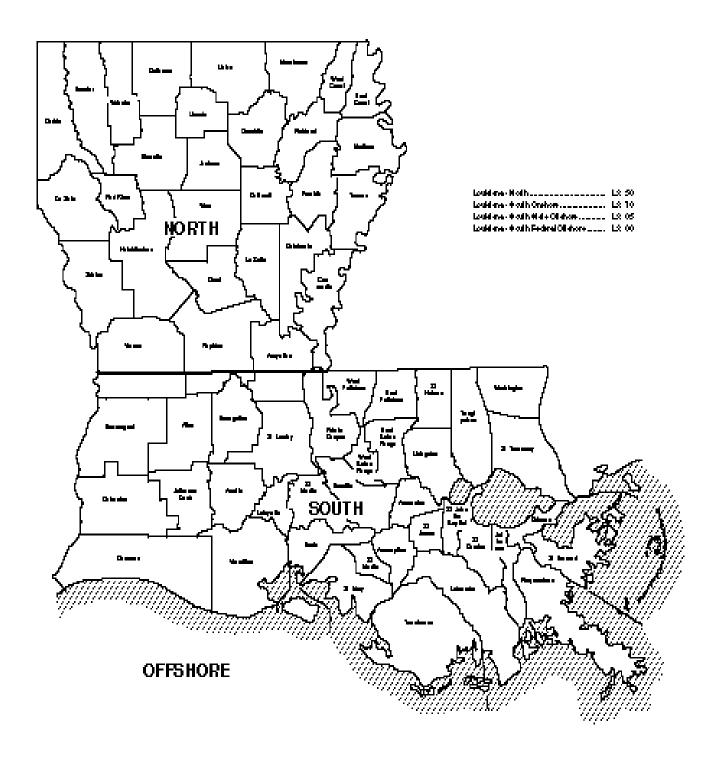


Source: After U.S. Geological Survey

Alaska Subdivisions and U.S. Geological Survey Quadrangles

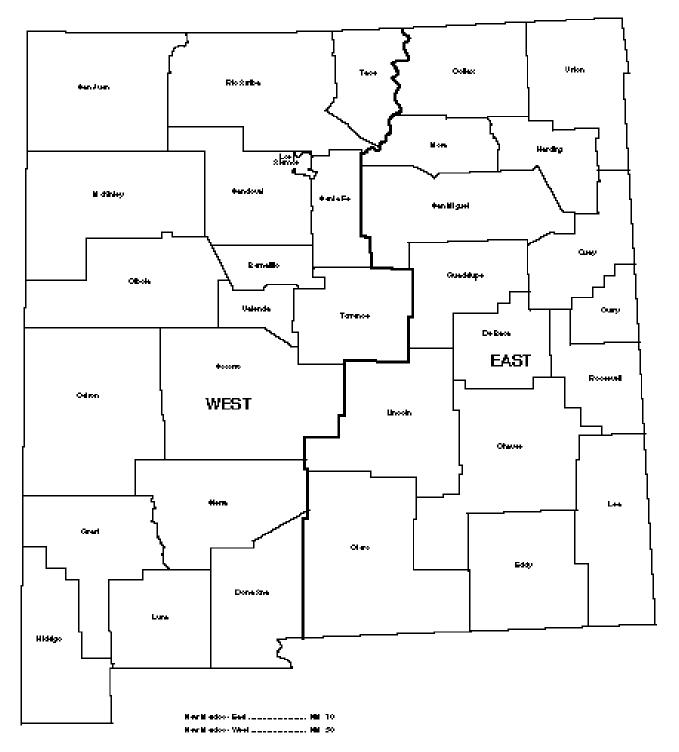


Subdivisions of California



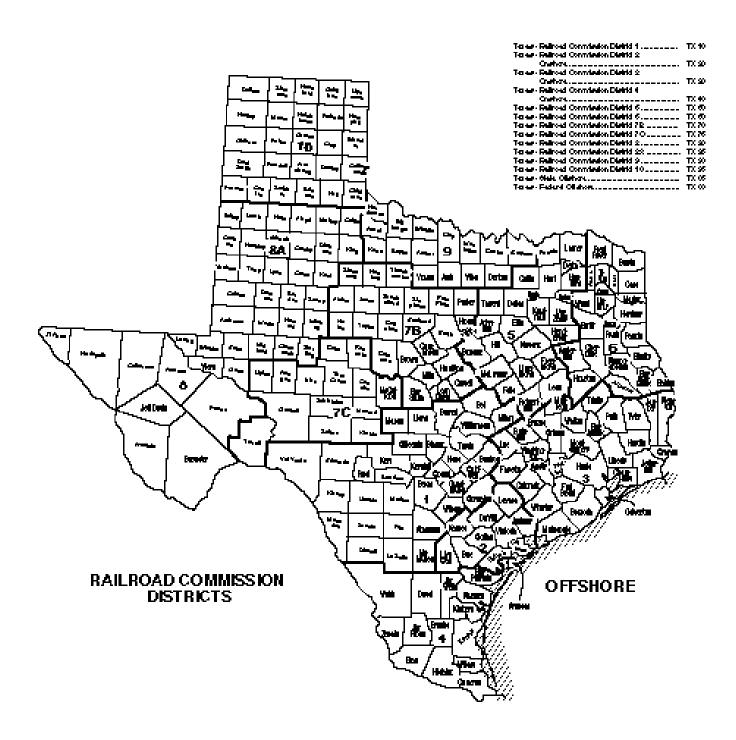
Source: Energy Information Administration, Office of Oil and Gas

Subdivisions of Louisiana



Source: Energy Information Administration, Office of Oil and Gas

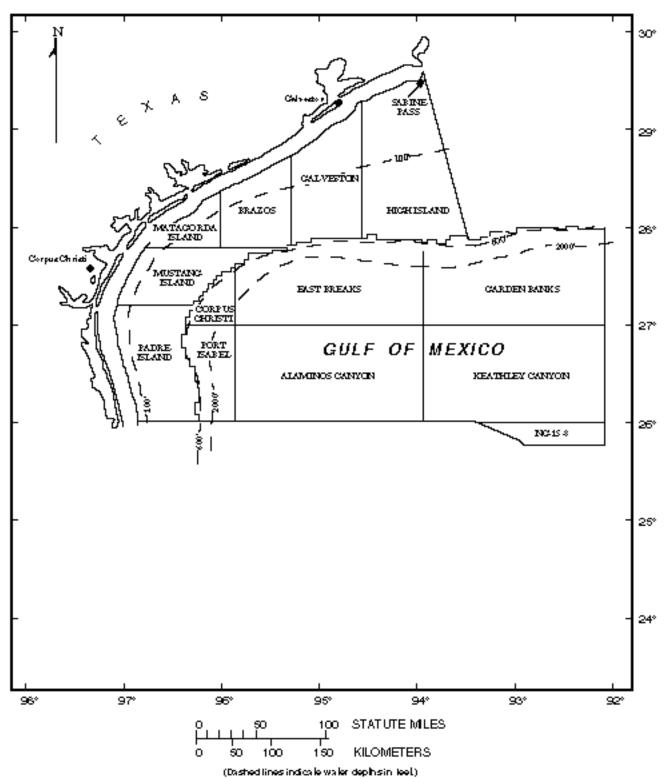
Subdivisions of New Mexico



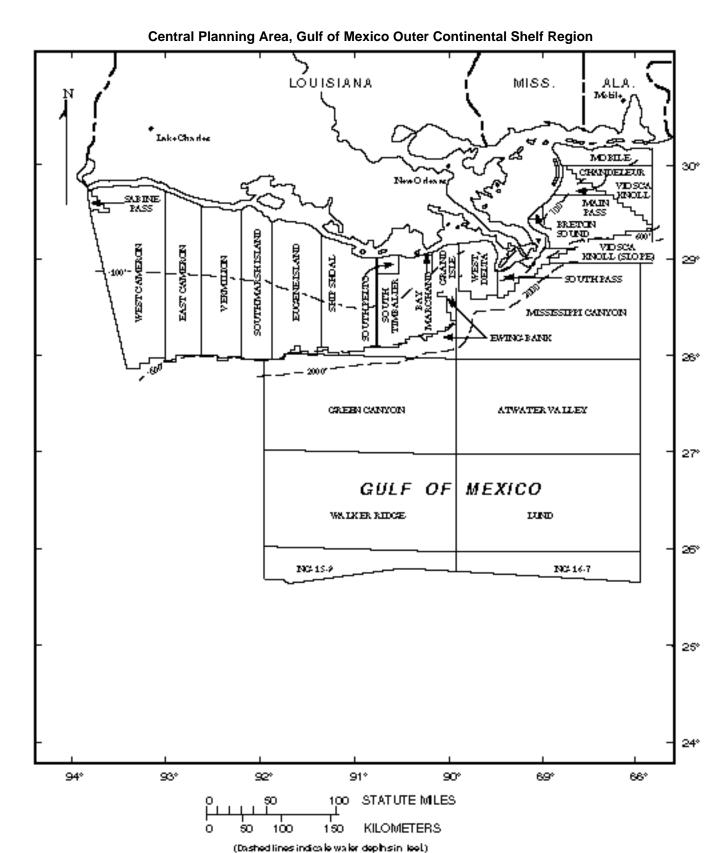
Source: Energy Indormation Administration, Office of Oil and Gas.

Subdivisions of Texas

Western Planning Area, Gulf of Mexico Outer Continental Shelf Region

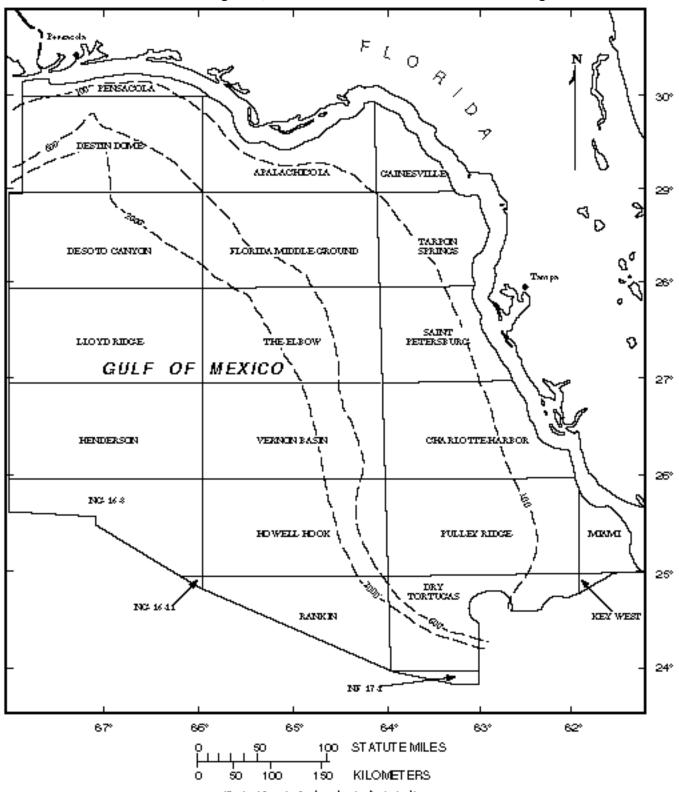


Source: After Minerals Management Service, U.S. Department of the Interior



ource: After Minerals Management Service, U.S. Department of the Interior





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Source: After Minerals Management Service, U.S. Department of the Interior.